

MICRO SWITCH

product sheet **51SW12-1** **TYPEWRITER KEYBOARD**



The 51SW12-1 keyboard is ideally suited to word processing and phototypesetting applications, especially where high speed alphanumeric data entry is performed by operators previously trained as touch typists. Every effort has been made to duplicate the operation of an office typewriter—to reduce operator training. This includes key array, buttons, key operating force, N-Key rollover interlock and more.

Sculptured buttons are used which provide a contoured typing surface similar to that used on some office typewriters. This feature not only improves the overall appearance, but adds to operator comfort.

A typewriter-type secretarial shift lock mechanism is also included. The operator puts the keyboard into the shifted mode by striking the shift lock key and returns to the unshifted mode by operating the left or right-hand shift key. A mechanical bail releases the shift lock.

This keyboard features our N-Key rollover. Data bits, set by a pulse from the down stroke as each key is depressed, are stored in the MOS memory. When a second key is operated, new data is set into the memory even if the first key is still depressed. Thus, there is no possibility of missing a character or of transposing characters as a result of the order of key release. Any number of keys may be held depressed, then released in any sequence without affecting the proper data entry sequence. This proven feature can reduce operator error by as much as 30%. The pulsed output is part of the solid state chip within each key, rather than a pulse network of discrete components, which significantly improves keyboard reliability.

The 51SW12-1 is dual mode, the first 6 bits identifying the key location and the 7th bit signifies shift. Depression of the shift or shift lock keys generates the 7th bit.

The 51SW12-1 keyboard incorporates the proven approach of MICRO SWITCH Hall-effect solid state keys coupled to MOS encoding. High quality printed circuit boards, rigid stainless steel mounting hardware, and double-shot molded buttons are used to insure long trouble-free keyboard performance.

If the 51SW12-1 keyboard doesn't exactly meet your requirements, we can supply keyboards tailored to your needs through our PROM (programmable read-only-memory) capability. See the inserted designer's kit or contact your nearest MICRO SWITCH branch office for complete information.

features

FAMILIAR "SELECTRIC-TYPE" ARRAY
FOR TYPEWRITERS

HIGH RELIABILITY AND LONG LIFE

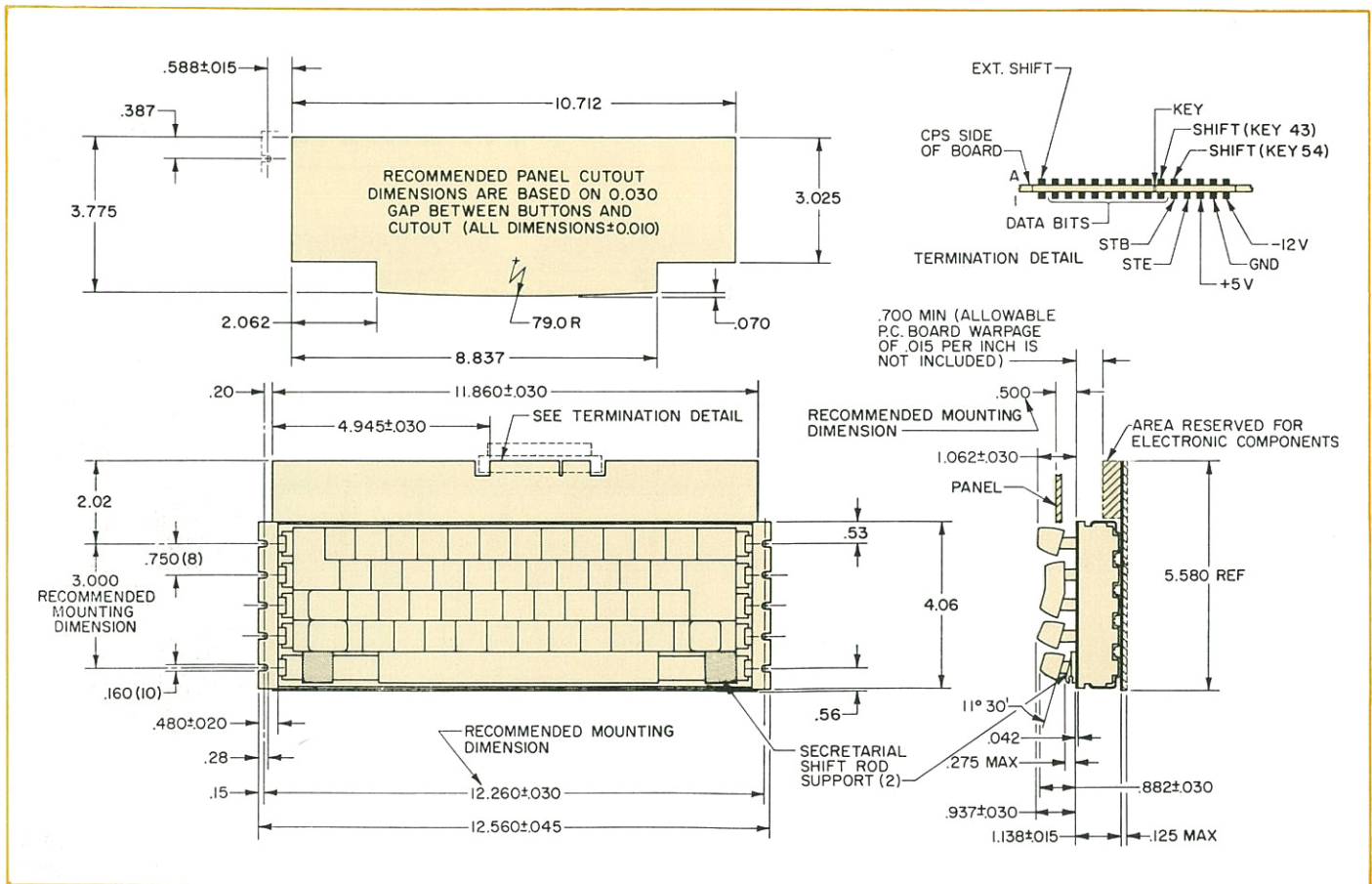
SIX BIT BINARY CODE

N-KEY ROLLOVER

SECRETARIAL SHIFT LOCK

"OFF-THE-SHELF" AVAILABILITY

PROM CAPABILITY



ELECTRICAL DATA

ELECTRICAL DATA		Function Key Outputs	Key Unoperated: +0.4 Volts DC max. @ 3.2 milliamps (sinking). Key Operated: +2.6 Volts DC min. @ 0.12 milliamps (sourcing).
Power Requirements	+5 Volts DC ± 5% @ 400 milliamps max. -12 Volts DC ± 20% @ 70 milliamps max. Keyboard ground @ 0 Volts NOTE: Tolerances include ripple.	Strobe Outputs	All keys in unoperated state: +0.6 Volts DC max. @ 1.6 milliamps (sinking) Key Operated: +2.55 Volts DC min. @ 0.12 milliamps max. (sourcing) pulsed output. Pulse Duration: 10 microseconds min. Timing: Data bits are true prior to strobe pulse.
Data Key Outputs (Positive Logic)	Logic "0": +0.6 Volts DC max. @ 1.6 milliamps (sinking). Logic "1": +2.55 Volts DC min. @ 0.12 milliamps max. (sourcing). Timing: Data bits are held in memory until the next key depression.		

OUTPUT INTERFACE

Card-edge outputs with gold-plated terminals accept standard connectors such as: Cinch-Jones #251-15-30-160 or equivalent. (Connector is furnished with this listing.)

Buttons

MICRO SWITCH sculptured button style. All buttons gray with white legends.

KEYROW OFFSET

3/8-3/16-3/8 inch offset.

KEY SPACING

Keys are spaced on 3/4 inch offset.

WEIGHT

2.9 lbs. approx.

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Secretarial shift lock. Keyboard is locked in shifted mode by depressing shift lock key and returned to unshifted mode by depressing either shift key.

Provides quick turn-around prototypes for individual customer requirements.

	2 !	3 @	4 #	5 \$	6 %	7 &	8 &	9 *	10 (	11)	12 —	13 +	14 BACK SPACE
15 TAB	16 Q	17 W	18 E	19 R	20 T	21 Y	22 U	23 I	24 O	25 P	26 []	RETURN	
29 LOCK	30 A	31 S	32 D	33 F	34 G	35 H	36 J	37 K	38 L	39 : ;	40 " '	RETURN	
43 SHIFT	44 Z	45 X	46 C	47 V	48 B	49 N	50 M	51 , ;	52 . , '	53 ? /	54 SHIFT		
60													

KEY NO.	BITS					
	5	4	3	2	1	0
2	0	0	0	0	1	0
3	0	0	0	0	1	1
4	0	0	0	1	0	0
5	0	0	0	1	0	1
6	0	0	0	1	1	0
7	0	0	0	1	1	1
8	0	0	1	0	0	0
9	0	0	1	0	0	1
10	0	0	1	0	1	0
11	0	0	1	0	1	1
12	0	0	1	1	0	0
13	0	0	1	1	0	1
14	0	0	1	1	1	0
15	0	0	1	1	1	1
16	0	1	0	0	0	0
17	0	1	0	0	0	1
18	0	1	0	0	1	0

KEY NO.	BITS					
	5	4	3	2	1	0
19	0	1	0	0	1	1
20	0	1	0	1	0	0
21	0	1	0	1	0	1
22	0	1	0	1	1	0
23	0	1	0	1	1	1
24	0	1	1	0	0	0
25	0	1	1	0	0	1
26	0	1	1	0	1	0
29	FUNCTION					
30	0	1	1	1	1	0
31	0	1	1	1	1	1
32	1	0	0	0	0	0
33	1	0	0	0	0	1
34	1	0	0	0	1	0
35	1	0	0	0	1	1
36	1	0	0	1	0	0
37	1	0	0	1	0	1

KEY NO.	BITS					
	5	4	3	2	1	0
38	1	0	0	1	1	0
39	1	0	0	1	1	1
40	1	0	1	0	0	0
41	1	0	1	0	0	1
43	FUNCTION					
44	1	0	1	0	1	1
45	1	0	1	1	0	0
46	1	0	1	1	0	1
47	1	0	1	1	1	0
48	1	0	1	1	1	1
49	1	1	0	0	0	0
50	1	1	0	0	0	1
51	1	1	0	0	1	0
52	1	1	0	0	1	1
53	1	1	0	1	0	0
54	FUNCTION					
60	1	1	1	0	1	0

ordering information

Contact your nearest MICRO SWITCH Branch Office and a Field Engineer will be glad to work with you in satisfying your keyboard requirements: proper selection, pricing and delivery scheduling. These experienced keyboard experts will provide sound and practical answers to your needs.

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